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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,721	09/30/2003	Frank Eliot Levine	AUS920030483US1	6347

35525 7590 02/26/2007  
IBM CORP (YA)  
C/O YEE & ASSOCIATES PC  
P.O. BOX 802333  
DALLAS, TX 75380

EXAMINER
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VO, TED T

ART UNIT	PAPER NUMBER
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2191

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/675,721

Applicant(s)

LEVINE ET AL.

Examiner

Ted T. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :9/30/03, 7/1/05, 1/9/06, 1/30/06, 2/14/06, 3/27/06, 4/25/06, 5/26/06, 6/05/06, 6/23/06, 6/26/06, 8/3/06, 8/18/06, 10/2/06, 11/2/06, 12/4/06, 1/22/07.

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### DETAILED ACTION

1. This action is in response to the communication filed on 09/30/2003.

Claims 1-24 are pending in the application.

### *Specification*

2. It requires providing information in all blanks when the information is available.

### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

(i) Claims 1-24 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-25 of copending Application No. 10/674,642. (US 2005/0071816 A1) This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: Claim 1, 9, 17 of this instant application are broad and thus the claims cover the claims 1-25 of

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the copending application, 10/674,642, particularly the instant application's claims cover claim 4 of the copending application.

(ii) Claims 1-24 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-25 of copending Application No. **10/675,776** (US 2005/0071817 A1) This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: Claims 1-24 of this instant application are broad and thus the claims cover the claims 1-25 of the copending application, 10/675,776.

(iii) Claims 1-24 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-25 of copending Application No. **10/675,777** (US 2005/0071515 A1) This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: Claims 1-24 of this instant application are broad and thus the claims cover the claims 1-25 of the copending application, 10/675,777.

(iv) Claims 1-24 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-25 of copending Application No. **10/675,778** (US 2005/0071611 A1) This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as

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follows: Claims 1-24 of this instant application are broad and thus the claims cover the claims 1-25 of the copending application, 10/675,778.

(v) Claims 1-24 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-33 of copending Application No. **10/682,385** (US 2005/0081107 A1) This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: Claims 1-24 of this instant application are broad and thus the claims cover the claims 1-33 of the copending application, 10/682,385.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

#### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. The claims 17-24 are rejected under 35 U.S.C 101 because the claimed invention is directed to non-statutory subject matter.

As per claims 17-24: The claims recite "a computer program product" in which, within the scope of these claims, is data. The Claims recite the data in a computer readable medium, where the specification includes the medium among the non-statutory the media.

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For example, in the specification, see passage,

"Examples of computer readable media include recordable-type media, such as a floppy disk, a hard disk drive, a RAM, CD-ROMs, DVD-ROMs, and transmission-type media, such as digital and analog communications links, wired or wireless communications links using transmission forms, such as, for example, radio frequency and light wave transmissions. The computer readable media may take the form of coded formats that are decoded for actual use in a particular data processing system".

Therefore, the claims are claiming a subject matter that is not concrete and tangible. Accordingly, this type of the claims fails to be statutory.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-24 recites the limitation, "indicators", where in the claims, this limitation is broadly and provides no adequate function/description. For example, "associating instructions in the routine of interest with a set of indicators to form a modified routine". Without functionality assigned to a generic claimed language, such as "a set of indicators", no one know what an "indicator" is, and what it does. An indicator could be a button, a sign, an "and/or" gate, a counter, a flag, setting in a register, triggers, etc. For examination, the interpretation for this language is a showing of a routine in a program which has a problem such as hotspot.

Since a language used in a claim requires not being vague, i.e. one cannot interpret it into many different meanings, this language used in the claims 1-24 renders the claims indefinite.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Intel, "Intel IA-64 Architecture Software Developer's Manual", Revision 1.1, Vol. 4, No. 245320-002, 7-2001.

Given the broadest reasonable interpretation of followed claims in light of the specification.

As per Claim 1: Intel reference has 8 sections. Intel discloses,

*A method in a data processing system for monitoring execution of instructions, the method comprising: responsive to identifying a routine of interest during execution of a program, associating instructions in the routine of interest with a set of indicators (sec. 6, p.7, i.e. triggers on events shown in table 6-2, see in the near end of the page, "registers indicate to...", see table 6.3, p. 10-11, and sec. 6, p. 13, "PMC/PMD register assignments for each monitoring feature...") to form a modified routine (See sec. 6, p. 5, "are interesting identifying performance bottlenecks and relating them back to their source code": identifying a routine of interest during execution of a program); and responsive to execution of an instruction in the modified routine (i.e. the routine contains hotspot results by profiling) during continued execution of the program, incrementing a counter (i.e., the performance counters. For example, see sec. 6, Figure 6-5, p. 7).*

As per Claim 2: Intel discloses, *The method of claim 1 further comprising: associating instructions in a second routine of interest with a second set of indicators to form a second modified routine (Intel*



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discloses a program that has many routines, and each of routine in monitored); *and responsive to execution of an instruction in the second modified routine, incrementing a second counter* (See sec. 6, Figure 6-5, p. 7).

As per Claim 3: Intel discloses, *The method of claim 1 further comprising: executing the program; and identifying a routine that is used more than a threshold during execution of the program as the routine of interest* (See sec. 6, p. 3).

As per Claim 4: Intel discloses, *The method of claim 1, wherein the set of indicators is located in a shadow memory* (See table 6.3, p. 10-11, and sec. 6, p. 13, "PMC/PMD register assignments for each monitoring feature...").

As per Claim 5: Intel discloses, *The method of claim 1, wherein the associating step comprises: associating an indicator is associated at least one instruction in the modified routine and wherein the indicator is located in a field within the instruction; and continuing execution of the program without recompiling the program* (e.g., event counters, seen in sec. 6.1.2.2, and 6.1.2.3, p. 3, or program counter sampling for identifying hot spot, see in sec. 6, p.6).

As per Claim 6: Intel discloses, *The method of claim 1, wherein the counter provides a value identifying a number of times that the instruction in the modified routine is executed* (refer to event counter).

As per Claim 7: Intel discloses, *The method of claim 1 further comprising: responsive to execution of the instruction, identifying a function called in the modified routine* (refer to event counter at branch, for example Branch Events in sec. 7.5, p. 5).

As per Claim 8: Intel discloses, *The method of claim 1 further comprising: responsive to execution of the instruction, identifying a program calling the modified routine* (refer to event counter at branch, for example Branch Events in sec. 7.5, p. 5).

As per Claims 9, 17: See rationale addressed in the rejection of claim 1 above.

As per Claims 10, 18: See rationale addressed in the rejection of claim 2 above.

As per Claims 11, 19: See rationale addressed in the rejection of claim 3 above.

As per Claims 12, 20: See rationale addressed in the rejection of claim 4 above.

As per Claims 13, 21: See rationale addressed in the rejection of claim 5 above.

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As per Claims 14, 22: See rationale addressed in the rejection of claim 6 above.

As per Claims 15, 23: See rationale addressed in the rejection of claim 7 above.

As per Claims 16, 24: See rationale addressed in the rejection of claim 8 above.

### ***Conclusion***


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (571) 272-3706. The examiner can normally be reached on 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708.

The facsimile number for the organization where this application or proceeding is assigned is the Central Facsimile number **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTV  
February 16, 2007

  
**TED VO**  
**PRIMARY EXAMINER**  
**TECHNOLOGY CENTER 2100**